



FIRE PREVENTION STANDARD #20

NFPA PLACARDS

The Livermore-Pleasanton Fire Department uses the NFPA placarding system to warn firefighters responding to emergencies that a facility contains hazardous materials and to inform them of the general type and severity of hazards associated with those materials.

When Required

NFPA placards are required where the presence of the placards would be of assistance to firefighters. The attached document “Threshold Quantities” requiring NFPA placards provides guidelines for determining when to require NFPA placards. However, facilities that meet one or more of the criteria below generally do not need to be placarded:

- Facilities with such small amounts of hazardous materials that the presence of placards would be of no value or would imply a level of hazard that does not exist (for example, a print shop with 20 gallons of flammable liquid).
- The presence and nature of the hazardous material(s) is well known (for example, a gasoline station). In some cases a part of the facility may be placarded while another not (for example, a hardware store where the sales area is not placarded but the back room containing a diesel generator is placarded).

Where Posted

Placards may be required on any of the following areas when the area contains hazardous materials indicating placards would be useful

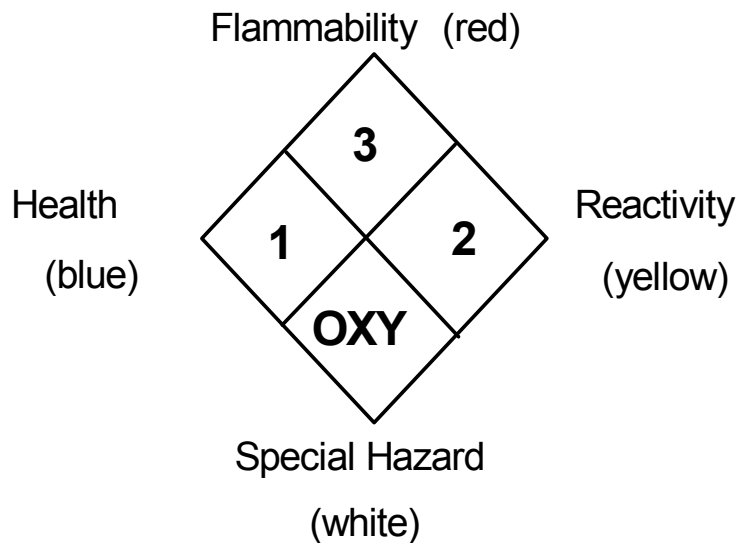
- 1) Outside areas on gates or fences.
- 2) Aboveground tanks (generally when the material is not a common material, such as diesel or LPG).
- 3) Doors to rooms or areas.
- 4) Buildings (generally the upper right-hand corner of each wall) for multi-tenant buildings a placard is placed on the front door or window near the door, and on or over every other exterior door.

Design Criteria

The placards are designed to warn of health, flammability, reactivity and special hazards. A ranking of 0 to 4 is used, with 4 being the most severe. Below is an example of an NFPA placard design.

Annual Fire Inspection Program Standard #20 NFPA Placards

SAMPLE



NFPA Standard 704 contains specific information concerning this system. However, the following summary information is commonly useful:

- Placards on buildings and outside areas must be 16 - 18 inches square [character color - black, character minimum size: height - 6", stroke - 15/16"]
- Placards on rooms inside must be 8 - 12 inches square [character color - black, character minimum size: height - 3.5", stroke - 1 1/2"]. When possible, placards should be placed over doors or on the side of the door not covered when the door is open, not on doors or on the side covered by the door when it is open.
The goal is that the sign be readily visible to a firefighter wearing self-contained breathing apparatus.
- Placards can be made of variety of materials but the colors must be clear, the writing legible and the signs durable. NFPA Standard 704 contains more detailed information
- Placards are to be located as required by the Fire Department. Placards are placed so as to be visible from the approaches that may be used by the Fire Department
- The ranking for some common materials are provided on the next page. More detailed guidelines on ranking materials are available from the Fire Prevention Bureau. For assistance call Danielle Stefani at (925) 454-2338 or Julie Wyman at (925) 454-2336.

Placards can be obtained from a variety of sources including many safety supply companies and firms that carry labels and signs. The following companies are listed for your convenience - there are many others.

Lab Safety Supply	1-800-356-0783
Label Master	1-800-621-5808
HCL Labels	1-800-421-6710
Industrial Safety	1-800-537-9721

Annual Fire Inspection Program Standard #20
NFPA Placards

HAZARD DESIGNATIONS FOR COMMON MATERIAL

Chemical Name	Health	Flammability	Reactivity	Special
Acetone	2	3	0	
Acetylene	1	4	2	Acetylene
Argon (compressed)	1	0	0	
Aromatic hydrocarbon solvent (paint thinner)	2	3	0	
Carbon dioxide (compressed)	1	0	0	
Chlorine gas	3	0	0	OXY
Diesel Fuel	0	2	0	
Ethylene glycol (antifreeze)	1	0	0	
Freon Refridgerant	2	0	0	
Gasoline	1	3	0	
Helium (compressed)	1	0	0	
Hydrogen (compressed)	1	4	0	
Isopropyl alcohol	2	3	0	
Kerosene	1	2	0	
Lead Acid Batteries (20% Acid)	2	0	0	
Muriatic Acid (hydrochloric acid)	3	0	0	
Nitrogen (compressed)	1	0	0	
Nitrous Oxide	1	0	2	OXY
Oil	0	1	0	
Oxygen (compressed)	1	0	0	OXY
Oxygen (cryogenic)	3	0	0	OXY
Propane (LPG)	2	4	0	
Safety Kleen Parts Cleaner	1	2	0	
Sodium Hydroxide	3	0	1	
Stoddard solvent (parts cleaner)	2	2	0	
Sulfuric Acid	3	0	2	W

Annual Fire Inspection Program Standard #20 NFPA Placards

Placard Designations Based on Hazard Classification Categories

The placard warning system numbers for each hazard category will be selected according to the following criteria:

HAZARD CATEGORY	DESIGNATION
Combustible Liquid II	F2
Combustible Liquid IIIA	F2
Combustible Liquid IIIB	F1
Combustible Dust	F4
Combustible Fiber	F3
Cryogenic Flammable	F4, H3
Cryogenic Oxidizing	OX, H3
Explosive	R4
Flammable Solid	F2
Flammable Gas (Gaseous)	F4
Flammable Gas (Liquefied)	F4
Flammable Liquid 1A	F4
Flammable Liquid 1B	F3
Flammable Liquid 1C	F3
Organic Peroxide, UD	R4
Organic Peroxide I	F4, R3
Organic Peroxide II	F3, R3
Organic Peroxide III	F2, R2
Organic Peroxide IV	F1, R1
Organic Peroxide V	Nonhazard
Oxidizing Gas (Gaseous)	OX
Oxidizing Gas (liquefied)	OX
Oxidizer 4	OX
Oxidizer 3	OX
Oxidizer 2	OX
Oxidizer 1	OX
Pyrophoric Gases	F4
Pyrophoric Solids, Liquids	F3
Unstable Reactive 4D	R4
Unstable Reactive 3D	R4
Unstable Reactive 3N	R3
Unstable Reactive 2	R2
Unstable Reactive 1	R1
Water Reactive 3	W, R3
Water Reactive 2	W, R2
Water Reactive 1	W, R1
Corrosive	H3
Toxic	H3
Highly Toxic	H4

Annual Fire Inspection Program Standard #20
NFPA Placards

Irritant	H2
Sensitizer	H1
Radioactive	H4, RAD
Carcinogen	H4, 3, 2, or 1
Other Health Hazards	H3, 2 or 1

F - Flammable category
R - Reactive category
H - Health category
W - Special hazard: water reactive
OX - Special hazard: oxidizing properties
RAD - Special hazard: radioactivity (symbol used)
UD - Unclassified detonable material
4D - Class 4 detonable material
3D - Class 3 detonable material
3N - Class 3 nondetonable material

THRESHOLD QUANTITIES REQUIRING NFPA PLACARDS

Hazard Category	Rating Number	Amount requiring outside placarding on a building or exterior area
HEALTH	4	More than 100 lbs. or 10 gals. or 50 cu. ft. (aggregate totals of weight or volume)
	3	More than 100 lbs. or 10 gals. or 50 cu. ft. (aggregate totals of weight or volume)
	2	More than 500 lbs. or 55 gals. or 1,000 cu. ft. (aggregate totals of weight or volume)
	1	More than 1,000 lbs. or 110 gals. or 2,000 cu. ft. (aggregate totals of weight or volume)
FLAMMABILITY	4	More than 500 lbs. or 55 gals. or 1,000 cu. ft. (aggregate totals of weight or volume)
	3	More than 500 lbs. or 55 gals. or 1,000 cu. ft. (aggregate totals of weight or volume)

Annual Fire Inspection Program Standard #20
NFPA Placards

	2	More than 1,000 lbs. or 110 gals. or 2,000 cu. ft. (aggregate totals of weight or volume)
	1	More than 2,000 lbs. or 220 gals. or 4,000 cu. ft. (aggregate totals of weight or volume)
REACTIVITY	4	More than 100 lbs. or 10 gals. or 50 cu. ft. (aggregate totals of weight or volume)
	3	More than 100 lbs. or 10 gals. or 50 cu. ft. (aggregate totals of weight or volume)
	2	More than 500 lbs. or 55 gals. or 1,000 cu. ft. (aggregate totals of weight or volume)
	1	More than 500 lbs. or 55 gals. or 1,000 cu. ft. (aggregate totals of weight or volume)

SUBDIVISION PLACARDS

Subdivisions (rooms or compartments) of buildings or areas within a facility will be placarded to indicate the greatest possible hazards within those subdivisions. Placards that are placed to identify hazards in building or area subdivisions due to storage or process shall be affixed next to access points into the subdivisions. These placards must be visible when doors into subdivisions are open or closed. Placards will be required when the following amounts of materials are stored or used in a subdivision.

Hazard Category	Rating Number	Amount requiring outside placarding on a building or area within a facility
HEALTH	4	Any amount
	3	Any amount
	2	More than 100 lbs. or 10 gals. or 50 cu. ft. (aggregate totals of weight or volume)
	1	More than 500 lbs. or 55 gals. or 1,000 cu. ft. (aggregate totals of weight or volume)
FLAMMABILITY	4	More than 100 lbs. or 10 gals. or 50 cu. ft. (aggregate totals of weight or volume)
	3	More than 100 lbs. or 10 gals. or 50 cu. ft. (aggregate totals of weight or volume)
	2	More than 500 lbs. or 55 gals. or 1,000 cu. ft. (aggregate totals of weight or volume)

Annual Fire Inspection Program Standard #20
NFPA Placards

	1	More than 1,000 lbs. or 110 gals. or 2,000 cu. ft. (aggregate totals of weight or volume)
REACTIVITY	4	Any amount
	3	Any amount
	2	Any amount
	1	Any amount

NOTE: Placards will not be required for underground storage of motor fuels.

For further information contact:

The Livermore-Pleasanton Fire Prevention Bureau
4550 East Avenue
Livermore, CA 94550
Phone: (925) 454-2362 Fax: (925) 454-2367